

A New Species of the Genus *Dolichognatha* (Araneae: Tetragnathidae) from Iriomotejima Island, Southwest Japan

Akio TANIKAWA¹⁾

谷川明男¹⁾: 西表島産 *Dolichognatha* 属の 1 新種

Abstract: A new species of the genus *Dolichognatha*, *D. umbrophila* is described on the basis of the materials obtained from Iriomotejima Island, Okinawa Pref., Southwest Japan. The genus is new to the Japanese fauna.

Spiders of the genus *Dolichognatha* have never been known to the Japanese fauna. However, after an examination of the materials obtained from Iriomotejima Island, Okinawa Pref., Southwest Japan, I recognized the occurrence of a species of the genus in the island. The species is not only new to the Japanese fauna but also new to science, and will be described in the present paper.

The genus *Dolichognatha* was described by O. PICKERD-CAMBRIDGE (1869) based on the type species *D. nietneri* O. PICKERD-CAMBRIDGE, 1869, from Ceylon (by monotypy). LEVI (1981) considered the genus as a senior synonym of *Landana*, *Paraebius*, *Prolochus*, *Nicholasia* and *Afiamalu*. However, FORSTER and PLATNICK (1984) objected to his treatment for *Landana*. In the present paper, I use *Dolichognatha* in the broadest sense, following the LEVI's concept. The Japanese species belongs to the same genus also in the strict sense.

All the type specimens designated in this paper are deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

The abbreviations used in this paper are as follows: ALE, anterior lateral eye; ALE-PLE, distance between anterior lateral eye and posterior lateral eye; AME, anterior median eye; AME-ALE, distance between anterior median eye and anterior lateral eye; AME-AME, distance between anterior median eyes; MOA, median ocular area; PLE, posterior lateral eye; PME, posterior median eye; PME-PLE, distance between posterior median eye and posterior lateral eye; PME-PME, distance between posterior median eyes.

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1) Noba Senior High School, 1660, Noba-chô, Kônan-ku, Yokohama-shi, Kanagawa, 233 Japan
神奈川県立野庭高校 〒233 神奈川県横浜市港南区野庭町 1660

Genus *Dolichognatha* O. PICKERD-CAMBRIDGE, 1869, sensu LEVI, 1981

- Dolichognatha* O. PICKERD-CAMBRIDGE, 1869, J. Linn. Soc. Lond., 10:387. — LEVI, 1981, Bull. Mus. comp. Zool., 149:277–282.
- Landana* SIMON, 1883, Ann. Mus. civ. Stor. nat. Genova, 20:184.
- Paraebius* THORELL, 1894, Bih. Svenska Vet.-Akad. Handl., 20:43.
- Prolochus* THORELL, 1895, Discr. Cat. Spiders Burma, p. 122.
- Nicholasia* BRYANT et ARCHER, 1940, Psyche, 47:60.
- Afiamalū* MARPLES, 1955, J. Linn. Soc. Lond., 42:495.

Diagnosis. Carapace longer than wide; cephalic region elongated, with parallel sides. AMEs the largest; secondary eyes lacks tapetum; PMEs the smallest or lost, if exist, touching each other or only slightly separated; lateral eyes separated by about their diameter. Chelicera elongated. Male palp simple, with large paracymbium attached to cymbium. Maxillae wider distally than proximally. Abdomen higher than long, often with two pairs of dorsal humps. Epigynum lightly sclerotized and simple.

Remarks. The placement of the genus has been controversial. In this paper, I place it in the family Tetragnathidae following LEVI's (1986) concept. Species of this genus are distributed widely in the warm and tropical regions of the world (ROEWER, 1942; BONNET, 1955, 1956, 1957, 1958; BLIGNOLI, 1983; PLATNICK, 1989). One species is known from Japan.

Dolichognatha umbrophila sp. nov.

(Figs. 1–10)

Type series. Holotype: ♂, allotype: ♀, Ōtomi, Iriomotejima Island, Okinawa Pref., Southwest Japan, 28-III-1985, A. TANIKAWA leg. Paratypes: 1 ♀, 30-III-1985, Urauchi, Iriomotejima Island, A. TANIKAWA leg.; 1 ♀, Shirahama, Iriomotejima Island, 3-I-1990, A. TANIKAWA leg.

Description. Measurement. Total length ♂ 3.28mm, ♀ 3.17–3.76mm; carapace length ♂ 1.92mm, ♀ 1.67–1.78mm, width ♂ 1.21mm, ♀ 1.18–1.24mm; abdomen length ♂ 1.69mm, ♀ 1.58–2.25mm, width ♂ 1.35mm, ♀ 1.60–2.26mm, height ♂ 1.76mm, ♀ 2.60–3.03mm; length of legs of holotype ♂ and allotype ♀ as shown in Table 1.

Table 1 Measurement on leg segments of *Dolichognatha umbrophila* sp. nov. (in mm; ♂/♀).

Leg	Tarsus	Metatarsus	Tibia	Patella	Femur	Total
I	0.82/0.67	2.22/1.53	2.50/1.73	0.80/0.73	2.92/2.20	9.26/6.86
II	0.65/0.58	1.57/1.22	1.60/1.22	0.70/0.66	2.10/1.79	6.62/5.47
III	0.42/0.40	0.73/0.63	0.57/0.49	0.42/0.42	1.08/0.96	3.22/2.90
IV	0.43/0.42	0.87/0.82	0.73/0.68	0.40/0.41	1.37/1.29	3.80/3.62

Male. Carapace longer than wide (length/width 1.59), cephalic region elongated, with parallel sides (Fig. 2). ALE/AME 0.75, PLE/AME 0.75, PME/AME 0.69, AME-AME/AME 0.75, PME-PME/PME 0.09, AME-AME/AME-ALE 1.09, ALE-PLE/ALE 1.67, PME-PME/PME-PLE 0.04, MOA length/width 1.13, anterior width/posterior width 2.40. Clypeus low (clypeus/AME 0.50). Chelicera elongated (Fig. 6), with many small tubercles, distally with a small tooth, with 2 large promarginal and 4 small retromarginal teeth. Labium wider than long (length/width 0.72). Sternum slightly longer than wide (length/width 1.05). Length of leg I/carapace 4.82, legs I and II much longer than legs III and IV (II/I 0.71, III/I 0.35, IV/I 0.41; Fig. 4). Male palp (Figs. 9, 10): lightly sclerotized; paracymbium projected laterally. Abdomen longer than wide (length/width 1.26), higher than long (height/length 1.31), with two pairs of dorsal humps (Figs. 2, 4).

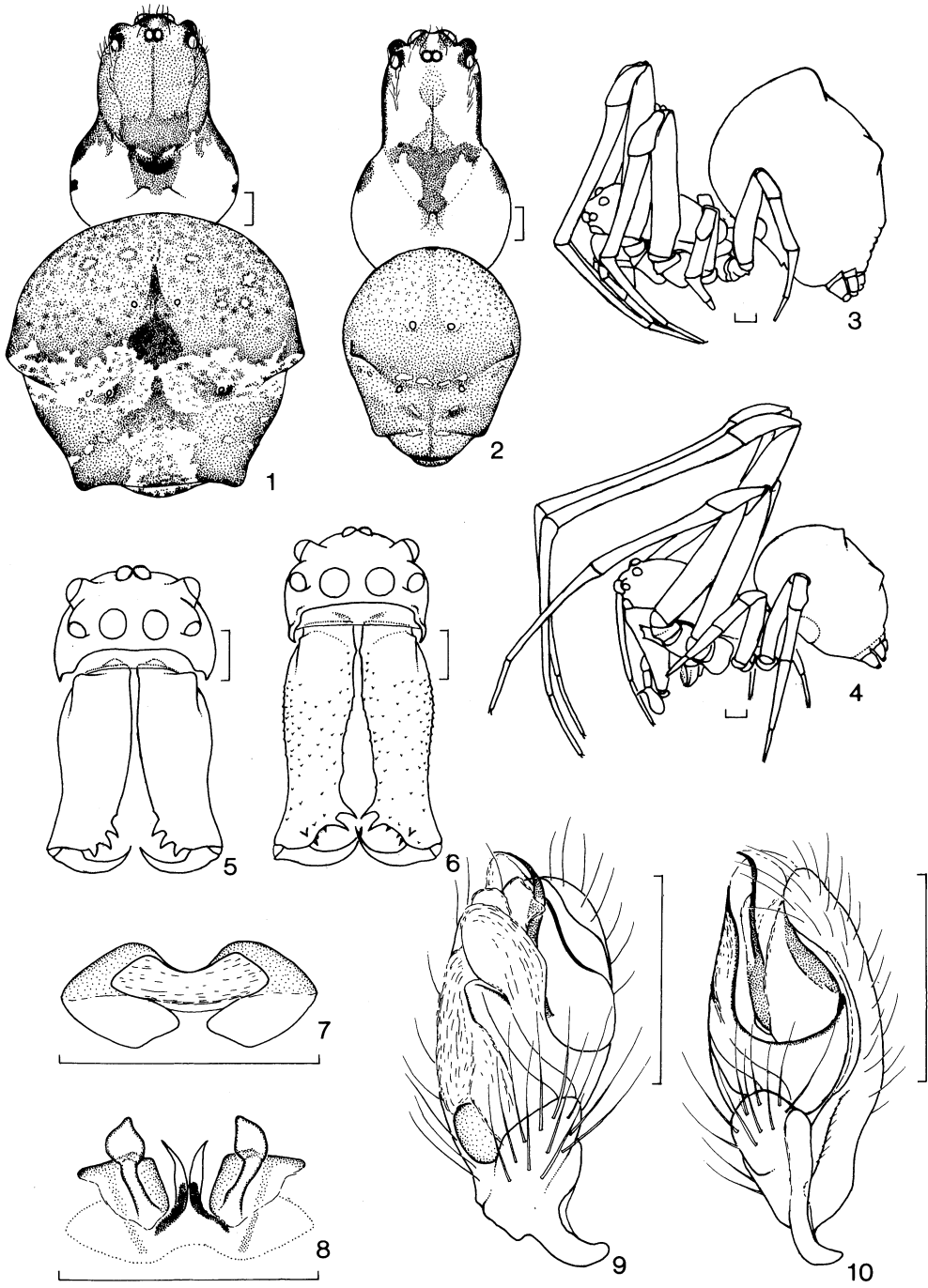
Female. Carapace longer than wide (length/width 1.41–1.46), cephalic region somewhat elongated (Fig. 1). ALE/AME 0.69–0.80, PLE/AME 0.75–0.81, PME/AME 0.63–0.69, AME-AME/AME 0.75–0.81, PME-PME/PME 0.00–0.20, AME-AME/AME-ALE 0.86–1.08, ALE-PLE/ALE 1.50–1.82, PME-PME/PME-PLE 0.00–0.08, MOA length/width 1.17–1.20, anterior width/posterior width 1.75–1.92. Clypeus low (clypeus/AME 0.50–0.53). Chelicera elongated (Fig. 5), with 3 large promarginal and 4 small retromarginal teeth. Labium wider than long (length/width 0.65–0.68). Sternum slightly longer than wide (length/width 1.02–1.07). Length of leg I/carapace 3.86–3.93, legs I and II much longer than legs III and IV (II/I 0.80, III/I 0.42, IV/I 0.52–0.53; Fig. 3). Abdomen nearly as long as wide (length/width 0.96–1.06), higher than long (height/length 1.16–1.28), with two pairs of dorsal tubercles (Figs. 1, 3). Epigynum simple, lightly sclerotized (Fig. 7). Female genitalia as shown in Fig. 8.

Coloration and markings. Male. Carapace pale yellow with dark brown markings (Fig. 2); chelicerae brown; maxillae light brown, inner margin yellow; labium light brown, distally yellow; sternum pale brown, with several dark brown patches; legs I and II brown, legs III and IV light brown, banded with dark brown. Abdomen dark brown mottled with yellowish brown and white (Fig. 2).

Female. Carapace pale yellow, cephalic region brown with dark brown markings, eye area lighter (Fig. 1); sometimes cephalic region also pale yellow with dark brown markings. Chelicerae brown; maxillae light brown, inner margin yellow; labium light brown, distally yellow; sternum pale brown with dark colored patches; legs I and II brown, sometimes banded with light brown, legs III and IV yellowish brown banded with dark brown. Abdomen dark brown, mottled with yellowish brown and white (Fig. 1).

Range. Iriomotejima Island.

Remarks. This species resembles *D. nietneri* O. PICKERD-CAMBRIDGE, 1869 and *D. pentagona* (HENTZ, 1850), but can be distinguished from these species by the shape of the male palpal organ.



A New Species of *Dolichognatha*

摘 要

沖縄県西表島産の標本に基づき, *Dolichognatha* ズナガドヨウグモ属 (新称) の1新種を, *Dolichognatha umbrophila* ズナガドヨウグモ (新称) と命名して記載した. 本属のクモ類は現在まで日本からは未記録であった.

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Figs. 1–10 *Dolichognatha umbrophila* sp. nov. — 1. Cephalothorax and abdomen of female, dorsal view. 2. Same, male. 3. Female, lateral view. 4. Same, male. 5. Eye area and chelicerae of female, frontal view. 6. Same, male. 7. Epigynum. 8. Female genitalia, dorsal view. 9. Male palp, dorsal view. 10. Same, lateral view. (Scales: 0.25mm).